

AR48

Cominco Ltd.

Annual
Report 1980



75 Years
1906-1981



Cominco 75 Years 1906-81

"The Company is not dependent upon any single mine, nor upon any single mining district; but its interests and business, besides being to an extent industrial, will also be so diversified as to minimize, so far as possible, the speculative element."

Walter H. Aldridge
Managing Director, 1906

That policy has been the key to Cominco's 75 years of success. When Mr. Aldridge wrote those words, the brand new Company consisted of a smelter at Trail, two mines and a power plant at Rossland, and a small mine in the East Kootenay.

Today, from its modest beginnings in the interior of British Columbia, Cominco has developed into an international enterprise.

It is now the world's largest mine producer of lead. With the Polaris Mine on stream in 1982, it will also be the largest in zinc, and it is moving toward an important position in copper.

The thousands of employees and shareholders who have helped to build the Company can be justifiably proud.

Cominco Ltd. Annual Report 1980

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In this Report: Tonnage figures are in short tons unless otherwise noted. Dollars are Canadian unless otherwise noted.

5 Year Highlights

(All dollar amounts in millions except per share figures)

	1980	1979	1978	1977	1976
Operations					
Sales of products & services	\$1,442.7	\$1,273.9	\$901.2	\$759.2	\$675.3
Net earnings	169.3	203.7	67.4	63.4	49.3
– per common share	9.44	11.52	3.59	3.50	2.75
Funds from operations	304.1	323.9	142.2	136.8	110.3
– per common share	17.33	18.58	7.99	7.82	6.35
Dividends on common shares	75.2	80.9	34.0	39.1	34.0
– per common share	4.40	4.75	2.00	2.30	2.00
Capital expenditures	280.3	150.1	87.4	80.8	139.8
Financial Position					
Assets:					
Working capital	\$ 314.5	\$ 269.6	\$208.1	\$163.3	\$206.1
Fixed assets (net)	909.9	645.5	564.3	556.9	532.4
Investments & other assets	129.6	166.0	161.0	151.6	104.5
	\$1,354.0	\$1,081.1	\$933.4	\$871.8	\$843.0
Represented by:					
Long-term debt	\$ 329.0	\$ 226.0	\$234.9	\$249.5	\$253.5
Income taxes not currently payable	168.4	119.6	92.1	84.5	73.5
Minority interests	90.4	54.8	42.4	51.4	50.1
Shareholders' equity	766.2	680.7	564.0	486.4	465.9
	\$1,354.0	\$1,081.1	\$933.4	\$871.8	\$843.0
Return on assets	16.3%	23.7%	9.4%	9.0%	9.2%
Return on common shareholders' equity	26.1%	37.7%	12.8%	12.3%	11.3%
Number of employees at year-end	12,296	11,254	10,539	10,898	10,696
Total employment costs	\$ 341.8	\$ 278.5	\$239.7	\$223.4	\$200.0
Market price per common share (Toronto Stock Exchange)					
– High	\$ 81	\$ 55½	\$ 34¾	\$ 38⅜	\$ 41¾
– Low	\$ 47½	\$ 31⅝	\$ 23	\$ 27⅝	\$ 32⅞

1906 The Consolidated Mining and Smelting Company of Canada Limited is founded.

1909 The Sullivan Mine at Kimberley, B.C. is optioned.

1911 The Le Roi Mine, Rossland, B.C. is acquired.

1916 The pioneer electrolytic zinc plant at Trail, B.C. is built.

1919 Head office is moved from Toronto to Montreal.

1920 Concentration of Sullivan ore by the selective flotation process proves successful.

1923 The Sullivan concentrator is completed.

1929 Airplanes piloted by the Company's engineers and geologists open new areas in northern Canada for exploration.

1930 The Company pioneers the control of atmospheric pollution from smelting, thereby diversifying into the manufacture and marketing of fertilizers.

1938 The Con gold mine in the Northwest Territories begins operations; ownership of Montana Phosphate Products Co. is obtained.

1941-46 During the war, ordnance ammonium nitrate plants in Trail and Calgary are operated for the Canadian Government.

1956 A wholly-owned U.S. subsidiary (now Cominco American Incorporated) is established at Spokane, Washington.

1965 Pine Point Mines' concentrator starts operating; fertilizer plant starts at Beatrice, Nebraska; Mitsubishi Cominco Smelting Co. Ltd. formed in Japan.

1966 The name Cominco Ltd. is adopted.

1968 The Magmont Mine, Salem, Missouri, and the ammonia plant at Borger, Texas begin production.

1969 The Vade, Saskatchewan potash operations start.



1971 Interest in Aberfoyle Ltd., Australia, is purchased.

1972 Annual General Meeting approves move of head office from Montreal to Vancouver; Fording Coal begins operations.

1973 Black Angel Mine, Greenland, comes into production.

1977 Trail modernization project begins; Rubiales Mine, Spain, starts production; Carseland, Alberta fertilizer operation begins.

1979 Que River Mine project in Tasmania, Australia, begins.

1980 Construction at Polaris Mine site begins; majority interest in Bethlehem Copper Corporation is acquired.



1. Side-dumping ore cars and crew at the Sullivan Mine, B.C. about 1917. 2. Husky team hauling a powder house to the Con gold mine, Yellowknife, N.W.T., 1937. 3. Pay day, Trail, 1917. 4. de Havilland Gypsy Moth, part of the Cominco Air Service, 1930, Creston, B.C. 5. The Elephant quickly became well-known symbol to prairie farmers in the 1930's. 6. The Polaris Mine barge housing processing plant, power house, offices and other facilities under construction in Trois-Rivieres, P.Q. It will be towed to the mine site in the summer of 1981.



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Report of the Directors



M.N. Anderson, W.G. Wilson

To the Shareholders:

Consolidated net earnings were \$169.3 million or \$9.44 a common share in 1980 compared to \$203.7 million or \$11.52 a common share in 1979. Dividends of \$83.3 million were paid to shareholders; \$2.00 a share on Series A Preferred Shares; \$2.11 a share on Series C Preferred Shares; and \$4.40 a share on Common Shares.

The downturn in the United States economy, a major market for the Company's metals, had a significant effect on earnings. Demand for refined lead was softer than in 1979 and average prices were lower. This, together with reduced production levels and increased costs, was a contributing factor in the reduction in earnings. Any beneficial effect of increased sales of refined zinc at marginally higher prices was more than offset by increased costs of production. Earnings from gold and silver were considerably above those in 1979 because of higher prices. Sales of chemicals, fertilizer products and potash at improved prices also had a beneficial effect on earnings although costs, particularly for natural gas, increased significantly.

Record capital expenditures in 1980 totalled \$280.3 million, an indication of the Company's faith in future demand for its products. The mechanization

program at the Sullivan Mine at Kimberley, B.C. and the capital program at the Trail, B.C. metallurgical plants to increase capacity and to improve productivity advanced on schedule.

Progress continued on the development of the Polaris zinc-lead mine on Little Cornwallis Island in the Canadian High Arctic, which is scheduled to begin production in 1982. An expansion program at the Vade, Saskatchewan potash operations began during the year. When it is completed in 1982, potash production capacity will increase by 25 percent to 1.2 million tons annually.

On October 31, 1980, a wholly-owned subsidiary, Worwil Investments Inc., purchased 25 percent of the common shares of Bethlehem Copper Corporation to bring Cominco's ownership to 64 percent. With this purchase, your Company has acquired a producing copper mine in British Columbia, and as described in the accompanying financial statements, the financial results of Bethlehem have been consolidated from November 1, 1980. On February 2, 1981, Cominco's ownership in Bethlehem was increased to 93 percent.

At the 1980 Annual Meeting, Mr. G.H.D. Hobbs and Mr. D.R. McMaster did not stand for re-election to your

Board of Directors. The Board wishes to express its sincere appreciation to Mr. Hobbs and Mr. McMaster for their significant contributions to the Company. Mr. R. Hougen and Mr. W.G. Wilson were elected to the Board. Subsequent to the Meeting, Mr. M.N. Anderson was elected Chairman and Chief Executive Officer, and Mr. W.G. Wilson, President.

Other senior appointments were Mr. R.P. Douglas as Senior Vice-President, Operations; Mr. J. Giovanetto, Vice-President, Employee Relations; Mr. P.A. Manson, Vice-President, Law and General Counsel; Mr. W.J. Robertson, Vice-President, Prairie Group; Mr. R.R. Stone, Vice-President, Finance; Mr. L.D. Margerm, Treasurer, and Mr. K.S. Benson, Corporate Secretary.

On behalf of the Officers of the Company and the Board of Directors, I wish to express appreciation for the contribution of all employees in making 1980 a successful year.

M. N. Anderson
Chairman and Chief Executive Officer

March 13, 1981

The Year in Review

Business Activities and Objectives

Cominco is an integrated natural resource company with principal activities in mineral exploration, mining, smelting and refining. It is one of the world's largest producers of lead and zinc. In 1980 the Company's lead and zinc production accounted for 8 and 7 percent, respectively, of western world mine production. The Company is western Canada's third largest chemical fertilizer producer, and supplies about 20 percent of the western Canadian market and 11 percent of the market in the western United States. Principal chemical and fertilizer products are ammonia, ammonium nitrate, ammonium phosphate, ammonium sulphate, potash and urea. The Cominco group of companies also produces and markets silver, gold, copper, coal, tin, tungsten, cadmium, bismuth, indium, steel products, fabricated metals, and high purity metals for electronic and other high technology industries.

The Company's primary objective is long-term, steady growth. To accomplish this, it is strengthening its position in lead and zinc, and is expanding its activities in other non-ferrous metals. Cominco is broadening its product and geographical base, expanding its research programs, and developing new markets.

The expansion and modernization of production facilities and the availability of Cominco-owned hydro-electric power at the Trail metallurgical operations are major factors in the Company's directional plan. At Trail, already the world's largest lead-zinc production complex, capacity will be increased to 300,000 tons of zinc by 1983 and to 200,000 tons of lead by the mid-1980's.

The development of new mines is an integral part of the Company's plan.

The Que River zinc/lead/silver mine of Aberfoyle Ltd. in Tasmania began shipment of ore in February 1981. The Polaris Mine, scheduled to begin production in 1982, will increase lead and zinc concentrate production



Model of the Polaris Mine, N.W.T., showing dock (foreground), processing plant, concentrate storage building (centre) and accommodation complex (background).

significantly. The Cominco group of companies is pursuing opportunities in copper and coal. During 1980 the Company acquired a majority interest in Bethlehem Copper. Fording Coal has vast undeveloped coal reserves in western Canada available to meet growing energy needs.

Cominco is a principal supplier of fertilizers in North America, and is expanding this business in response to market opportunities. A urea plant was completed at year-end in Borger, Texas. An expansion program to increase potash production is underway at Vade, Saskatchewan. A new product, urea sulphur, is being introduced. Urea sulphur combines sulphur with nitrogen to enable farmers to overcome an increasing problem of sulphur deficiency in soils.

In managing the growth of its businesses, Cominco seeks to achieve and maintain high standards of production efficiency, technological innovation, market development, and employee and customer satisfaction. The Company places great emphasis on employee health and safety.

Growth in earnings is also embodied in Cominco's planning. To reach this goal, the Company will invest in new projects and will finance them by augmenting shareholders' investment with borrowed funds. The relationship of

borrowings to equity will ensure that the Company's credit rating will be protected.

Marketing

In general, world demand for metals declined in 1980 reflecting economic uncertainty and recession in some markets. Consumption of lead and zinc declined throughout the western world, and in the United States the decline was particularly severe, dropping 25 percent for both metals. Nevertheless, the Company's total sales were at record levels in 1980 at \$1,442.7 million compared to \$1,273.9 million in 1979.

In comparison to 1979, world prices for silver and gold were higher in 1980, the price for zinc was virtually unchanged, while the price for lead was significantly lower. Prices for chemicals and fertilizers were generally stronger in 1980 than in 1979.

Cominco sold 159,200 tons of refined lead in 1980 compared to 174,000 tons in 1979. Refined zinc sales were 284,500 tons, up slightly from 280,400 tons last year. As shown in the Production and Sales Statistics table, sales of refined metals include metals produced from concentrates from the Company's mines which are processed for Cominco in smelters not owned by the Company. Market demand for Cominco lead and zinc concentrate was strong in 1980. Sales were 249,400 tons, somewhat less than the 305,900 tons sold in 1979 but in line with available supply. Cominco inventories of lead and zinc in the form of concentrates and refined metal were at minimum working levels at year-end.

In 1980 speculative demand for gold and silver increased. Prices were strong, averaging \$613 U.S./oz. for gold in London against \$307 in 1979, and \$21 U.S./oz. for silver in London against \$11 U.S. in 1979. Sales of gold totalled 121,500 ounces, compared with 122,300 ounces in 1979. Sales of silver

totalled 8,491,000 ounces compared with 9,883,000 ounces in 1979. The lower volume of silver available for sale in 1980 was principally due to the utilization of silver by the Company for production of anodes to be used in the new zinc refinery at Trail. As existing anodes are removed from service, silver will be recovered and made available for sale.

Cominco's electronic materials business in both the United States and Canada continued its rapid growth in 1980 with sales rising to \$55 million in 1980 from \$29 million in 1979. In view of the favourable long-term outlook, additional facilities are being constructed.

During the year, the operations of Cominco GmbH in Germany were discontinued and this business is being handled by Cominco (U.K.) Ltd.

Cominco sales of fertilizer and chemicals, including potash, amounted to 2,832,000 tons in 1980 against 2,692,000 tons in 1979. Year-end inventories were low.

The outlook for metals in 1981 is unclear, and depends mainly on economic activity in the western world. At the start of 1981, the supply and demand of both lead and zinc statistically were virtually in balance, while consumer inventories of refined metals were low. Demand for both lead and zinc concentrates is expected to remain strong. With the continuing escalation in production costs, especially energy costs, an upward trend in prices for these metals is anticipated.

The outlook for potash and fertilizers is good. Rising prices and increased demand for agricultural products is expected to stimulate demand for Cominco's potash and fertilizers.

Production Mines

The Sullivan Mine at Kimberley, B.C., and Pine Point Mines, in the Northwest Territories of Canada remain the chief sources of supply of concentrates to the Company's metallurgical operations at Trail, B.C. Other lead-zinc mines



Operator maneuvers 30-cubic-yard dragline at Pine Point, N.W.T. where a record seven million tons of waste and overburden was removed in 1980.

operated by subsidiary and associated companies include Magmont Mine, Missouri, U.S.A.; Black Angel Mine, Greenland; and Rubiales Mine, Spain. Other producing mines are Con Mine, N.W.T. (gold); Aberfoyle's Rossarden, Cleveland and Ardlathan mines in Australia (principally tin); Warm Springs Mine, Montana, U.S.A. (phosphate rock); Vade Mine, Saskatchewan (potash); Jersey Mine, B.C., (copper); and Fording Coal Limited's Fording River Mine, B.C. (coal).

Sullivan Mine	1980	1979
Tons of ore milled	2,351,000	2,257,000
Zinc		
Average grade	2.7%	3.7%
Tons of concentrate	105,200	143,000
Lead		
Average grade	3.9%	5.0%
Tons of concentrate	121,100	160,000
Silver		
Average grade	1.3 oz	1.8 oz
Ounces produced	3,037,500	4,058,700

In 1980 the average grade was affected adversely by high dilution and by substitution of lower grade open pit ore to make up for a shortfall in

underground ore because of difficult ground conditions. During 1981 grades are expected to approximate 1979 levels.

Pine Point Mines	1980	1979
Tons of ore milled	3,626,000	3,291,000
Zinc		
Average grade	5.5%	5.5%
Tons of concentrate	314,600	288,000
Lead		
Average grade	2.0%	1.9%
Tons of concentrate	81,800	73,900

The high stripping activity during the past two years, due in part to the 30-cubic yard dragline, and firmer markets for concentrates enabled the Company to increase the tonnage treated at the concentrator.

Black Angel Mine (Vestgron Mines Limited)	1980	1979
Tons of ore milled	714,000	706,000
Zinc		
Average grade	13.4%	14.5%
Tons of concentrate	167,500	167,000
Lead		
Average grade	5.3%	5.5%
Tons of concentrate	46,300	49,100

Mine production reached a record level in 1980. The grade of ore processed was lower, but recoveries in the concentrator were improved substantially.

Con Mine	1980	1979
Tons of ore milled	212,000	217,000
Gold		
Average grade	0.48	0.46
oz/ton		oz/ton
Ounces produced	96,900	95,000

Mine production was slightly lower than last year due to the failure of the Robertson hoist motor generator in January. Production resumed after a ten-day interruption.

Jersey Mine (Bethlehem Copper Corporation) <i>(entire year)</i>	1980	1979
Tons of ore milled	6,924,000	7,193,000
Copper		
Average grade	0.38%	0.41%
Pounds of copper in concentrate	41,834,000	46,013,000

Bethlehem Copper became a subsidiary on October 31, 1980 and the results of its operations have been consolidated from that date.

During 1980 all ore was mined from the Jersey orebody whereas ore from both the Jersey and Iona orebodies was processed in 1979. Ore processed and copper produced were lower in 1980 because of the hardness of the Jersey ore and the slightly lower copper content of the ore.

Magmont Mine (Cominco American Incorporated)	1980	1979
Tons of ore milled	1,084,000	1,096,000
Lead		
Average grade	8.0%	8.2%
Tons of concentrate	54,500	57,900
Zinc		
Average grade	1.0%	1.4%
Tons of concentrate	6,600	9,300
Copper		
Average grade	0.4%	0.4%
Tons of concentrate	4,800	5,400

The mine and mill operated at capacity. Ore grade declined slightly but was higher than the average grade of the remaining reserves (including Magmont West).

Metals

Refined zinc production at Trail in 1980 was 233,000 tons, compared to 229,000 tons the previous year. Refined lead production at Trail amounted to 130,000 tons, compared to 140,000 tons in 1979. Total gold production in 1980 was 121,300 ounces compared to 120,100 ounces in 1979. The Con Mine produced 96,900 ounces, with the remaining 24,400 ounces from concentrates processed at Trail. Total silver production in 1980 was 8,917,000 ounces, compared to 10,002,000 ounces in 1979. Of this production, 3,658,000 ounces came from Company-owned sources.

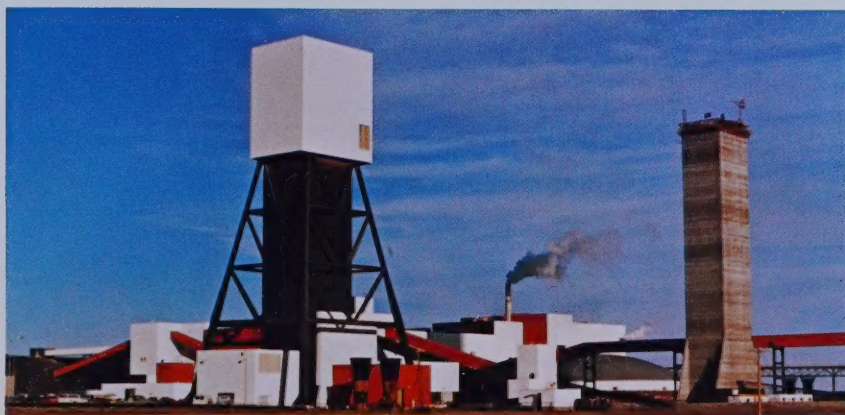
Cominco American maintained high production levels of electronic materials during most of the year. The Electronic Materials Division manufactures sub-assembly components used by the electronics industry. Research and development has resulted in a number of important new products including improved gold bonding wire, various bonding ribbons, new alloys to replace gold, and new sputtering targets used for metallizing silicon wafers in microelectronic device manufacture.

Chemicals and Fertilizers

The Company's fertilizer and chemical operations in Canada and the United States produce a variety of plant foods which contain four essential nutrients for plant growth — nitrogen, phosphorous, potassium and sulphur. Cominco owns chemical and fertilizer plants at Trail and Kimberley, B.C.; Carseland and Calgary, Alberta; Vade, Saskatchewan; Beatrice, Nebraska; and Borger, Texas. The principal products are ammonia, ammonium nitrate, ammonium phosphate, ammonium sulphate, potash and urea, which are marketed in western Canada, and the mid-western and western United States.

Fertilizer operations manufactured 2,787,000 tons of product in 1980, compared with 2,612,000 tons in 1979.

At Carseland, Alberta the ammonia plant produced 430,000 tons of ammonia compared to 424,000 tons in 1979. Of this amount, 169,000 tons were produced for sale and the balance was used in the production of 441,000 tons of urea compared to 481,000 tons in 1979. The lower urea production was due mainly to a shutdown to repair the pressure vessel in the urea plant. At Calgary, fertilizer and chemical production was 148,000 tons in 1980 compared to 159,000 tons in 1979. In British Columbia, the plants at Trail produced 381,000 tons compared to 398,000 tons in 1979, and at Kimberley, 197,000 tons were produced compared to 217,000 tons in 1979.



New slipformed concrete headframe will join existing counterpart to increase production at Vade, Saskatchewan potash operations to 1.2 million tons a year.

Cominco American's plant at Borger produced 369,800 tons of ammonia, compared to 302,500 tons in 1979 when the plant experienced operating difficulties. Of the total ammonia produced, 299,300 tons were produced for sale and the balance converted to 142,400 tons of ammonium nitrate at the Beatrice plant. This compares to 157,000 tons of ammonium nitrate produced at Beatrice during 1979. An 85,000 ton-per-year urea plant, adjacent to the Borger ammonia facility, commenced production late in 1980 producing both feed and fertilizer-grade urea.

At the Vade Mine near Saskatoon, Saskatchewan, a record 1,009,000 tons of potash was produced compared to 830,000 tons in 1979. A \$31 million expansion program is underway to increase annual capacity to 1,200,000 tons and will include equipping a second shaft with a new headframe and service hoist.

Other Operations

Western Canada Steel Limited (100 percent owned) operates plants producing steel products from scrap metal in Vancouver and in Calgary, and through a subsidiary company, Hawaiian Western Steel, Inc. (51 percent owned) in Honolulu. The Vancouver and Honolulu plants operated at near capacity production rates of 97,000 tons and 56,000 tons respectively in 1980. The Calgary plant, with a new furnace, increased production to 94,000 tons in 1980 from 71,000 tons in 1979. Capacity at the Vancouver operation is being increased in 1981 to 175,000 tons a year. A continuous casting plant will be operational in April 1981, and a high-capacity continuous rolling mill was purchased for installation in 1982.

Cominco owns five hydro-electric plants on the Kootenay and Pend d'Oreille rivers near Trail which provide electric power to the Company's Trail and Kimberley operations. West



The \$210 million zinc electrolytic and melting plant at Trail will be partially operational in 1981.

Kootenay Power and Light Company, Limited, a subsidiary of Cominco, owns one hydro-electric plant on the Kootenay River and provides electric power to residential and industrial consumers in the Kootenay and Okanagan areas of southern British Columbia. Electric power, which from time to time is surplus to Cominco's industrial needs, is offered for sale to West Kootenay and other Canadian utilities. If not required for their needs the surplus is then offered for sale to U.S. consumers on an interruptible basis.

West Kootenay faces a growing need for power and Cominco has its own growing needs for power for industrial purposes. Early in 1980 Cominco and West Kootenay proposed entering into an agreement which would

have provided West Kootenay with a block of low-cost, long-term power by allowing West Kootenay to use three of Cominco's plants and to have the remaining surplus from Cominco's industrial generating facilities until required for industrial purposes. Application was made to the British Columbia Energy Commission by West Kootenay for approval to enter into the agreement, and by Cominco for exemption from utility regulation which might arise by entering into that agreement. Following a public hearing in May, the Energy Commission recommended that Cominco's application be granted but the required approval of the Lieutenant-Governor in Council was not given. Accordingly, the proposed agreement was rendered void.

In September 1980 the Government replaced the former Energy Act with the Utilities Commission Act. West Kootenay's demands for power together with Cominco's need to use its power for its own industrial purposes will shortly require West Kootenay to purchase power from B.C. Hydro under a 1972 long-term contract with that corporation.

To resolve the circumstances described above, in March 1981 Cominco and West Kootenay announced a plan to make West Kootenay independent of Cominco. Subject to obtaining the required regulatory approvals, the plan contemplates West Kootenay will acquire three of Cominco's power plants and raise funds for its ongoing capital requirements by offering its shares to the public. When this plan is completed, Cominco will own 50 percent or less of West Kootenay.

Construction in Progress

The Company's commitment to increase its production capabilities involves both new mine development and the upgrading of present facilities. In addition to the Que River development in Tasmania and the expansion underway to increase production of potash in Saskatchewan, projects involving major capital expenditures are the Polaris zinc-lead mine in the Canadian High Arctic, development of the Magmont West Mine, modernization of the Sullivan Mine, and the program to increase capacity and to improve productivity at Trail metallurgical operations.

The Polaris Mine, located 75 miles from the magnetic North Pole on Little Cornwallis Island, N.W.T., is designed to produce 187,000 tons of zinc concentrate and 42,000 tons of lead concentrate annually. At Trois Rivières, Quebec, construction of the mine's concentrator, power house, offices and other facilities on a 100 by 400 foot barge is being completed. The barge will be towed to the mine site in August, 1981. At Little Cornwallis Island, underground mine development is progressing well; the main oil storage tank is complete; the airstrip has been improved and extended; and construction of accommodation for 250 employees is nearing completion. The total projected cost is \$130 million, and operations are scheduled to start in 1982.

The Trail program, which started in

1977, continues on schedule. The largest single component is \$210 million for the zinc electrolytic and melting plant. This plant will be partially operational in 1981 and will be completed by 1983. In addition to increasing capacities, the program will result in important improvements in productivity, working conditions and environmental control. Another significant project is the construction of the world's first zinc pressure leaching plant, now in the start-up phase. The new technology incorporated in this plant separates sulphur from zinc concentrate by chemical (hydro-metallurgical) rather than roasting (pyrometallurgical) methods to produce



Workmen at Trail line autoclave pressure vessel, an integral part of the new pressure leaching process.

elemental sulphur instead of sulphur dioxide.

An increase in refined zinc production capacity to 300,000 tons a year by 1983, and an increase in refined lead production capacity to 200,000 tons a year by 1985 will be achieved as a result of this program. When originally announced in 1977, the program was described as costing \$425 million expressed in 1976 dollars. Expressed in dollars of the year in which the funds are to be spent, the total cost is expected to be approximately \$700 million.

Cost of Products Sold

Cost of products sold in 1980 amounted to \$877.4 million and is determined as follows:

Value of finished goods inventories at beginning of year	\$ 112.3 million
Production costs incurred	<u>\$ 888.8 million</u>
	\$1001.1 million
Less value of finished goods inventories at end of year	<u>\$ 123.7 million</u>
Cost of products sold	<u>\$877.4 million</u>

Production costs incurred in 1980 were \$203.5 million over 1979.

The costs of concentrates and other raw materials purchased from others for processing totalled \$403.8 million or 45 percent of total production costs. These costs increased by \$120 million over 1979. The principal causes for the increase in costs were: increased cost for metals contained in concentrates, \$31 million; additional volumes of concentrates purchased, \$49 million; and increased cost of natural gas used in the production of nitrogen fertilizers, \$19 million.

Despite continuing efforts to improve efficiency, operating costs increased by \$83.5 million. Energy costs (excluding natural gas used in the production of nitrogen fertilizers) and labour costs were each 16 percent higher than in 1979 and costs for operating supplies rose by 23 percent.

Associated Companies

Associated companies are those in which Cominco Ltd. owns 50 percent or less of the shares but in which it has significant influence.

Aberfoyle Limited (47 percent owned) had revenues of \$58 million and net earnings of \$9.3 million compared to \$56.5 million and \$7.7 million respectively in 1979. During 1980, total tin, tungsten and copper produced in concentrates was 12 percent lower than in the previous year, mainly due to lower recovery from ore treated at the Ardlethan Mine.

During 1980 Aberfoyle continued development of the high grade zinc/lead/silver mine at Que River in northwest Tasmania, Australia. Approximately \$10 million had been spent on exploration prior to the decision to bring the mine into production, and a further \$26 million is being spent on construction and development. The mine began deliveries of ore to another company's concentrator in February 1981. When fully operational, the annual production rate is expected to be 165,000 tons of ore. Exploration programs at the Ardlethan tin mine have intersected a new body of tin mineralization leading to confidence that the life of this mine will be significantly extended.

The Canada Metal Company Limited (50 percent owned) recorded sales of \$102.3 million in 1980, compared to \$110.1 million the previous year. As with other secondary lead refiners, Canada Metal experienced significant reductions in prices which affected earnings. Capital programs helped to upgrade environmental facilities.

Exminesa's Rubiales Mine in the Province of Lugo, Spain (47 percent owned) produced 130,500 tons of zinc concentrate compared to 102,300 tons in 1979, and 20,000 tons of lead concentrate compared to 18,700 tons in 1979, from 975,900 tons of ore. This production represents the highest tonnage processed since the start of operations in 1977. The operating performance continues to improve.



Exminesa's Rubiales Mine, Spain, achieved the highest production levels since start of operations in 1977.

Fording Coal Limited with operations near Elkford, British Columbia (40 percent owned) produced 3,832,000 tons of metallurgical grade clean coal, compared to 3,221,000 tons in 1979. Almost all production was sold to Japan. Sales were 3,843,000 tons compared to 3,363,000 tons in 1979. A major \$115 million expansion program to increase production to 5,500,000 tons by 1983 is underway.

At Cominco Binani Zinc in India (40 percent owned) the zinc refinery at Kerala was shut down all year due to a labour dispute. A settlement was reached in February, 1981 and operations are being resumed.

The lead refinery of Mitsubishi Cominco Limited in Japan (45 percent owned) operated at capacity in 1980. However, reduction in domestic lead prices, reflecting world market

conditions, resulted in lower earnings.

During the year the Company sold its 50 percent interest in Mazak Limited, a zinc alloyer operating in the United Kingdom, for \$1.9 million.

Set out below is a summary of the operating results and the financial position of associated companies:

Results of operations for 1980:

	(Millions)
Revenues	\$479.4
Costs and expenses	425.5
Earnings before the following	53.9
Income taxes	(18.3)
Exchange losses on translation of foreign companies	(2.2)
Total net earnings of associated companies	\$ 33.4
Cominco's share of net earnings	\$ 13.9
Dividends received by Cominco	\$ 5.6

Financial position of associated companies at December 31, 1980

Working capital	\$ 20.0
Fixed assets	278.6
Other assets	4.7
	303.3
Less: Income taxes not currently payable	58.8
Long-term debt	68.3
Other non-current liabilities	9.9
Net assets	\$166.3
Cominco's share of net assets	\$ 73.4

	Location	% Ownership	Share of Earnings (millions)	
			1980	1979
Aberfoyle Limited	Australia	47	\$ 4.1	\$ 3.2
The Canada Metal Company Limited	Canada	50	0.2	2.3
Exploracion Minera Internacional Espana, S.A. (EXMINESA)	Spain	47	3.6	(0.9)
Fording Coal Limited	Canada	40	5.7	5.7
Others			0.3	0.4
(Cominco Binani Zinc Limited - India; Mitsubishi Cominco Smelting Company Limited - Japan)				
			\$13.9	\$10.7

Other Companies

For those companies in which Cominco does not exercise significant influence, the investment is carried at cost and income is included in Cominco's consolidated financial statements only when dividends are received. The principal investments and the Company's share of ownership at December 31, 1980 were:

Panarctic Oils Ltd.	8.0%
Tara Exploration & Development Company Limited	17.4%

Panarctic Oils conducts exploration for oil and gas in the Eastern Arctic. Panarctic has no source of revenue and relies upon shareholders and exploration agreements with other companies for funds for drilling activity. To December, 1980, Panarctic had interests in reserves estimated at 16 trillion cubic feet of gas.

Tara Exploration owns 75 percent of Tara Mines Limited. Tara Mines operates the zinc-lead Navan Mine in the Republic of Ireland. Production improved in 1980 to 2,354,000 tons of ore, producing 390,500 tons of zinc concentrate and 57,800 tons of lead concentrate. Sales were US \$93.3 million, compared to US \$86.4 million in 1979. Net earnings from operations were US \$108,000 compared to US \$5.3 million in 1979. The sharp drop in earnings resulted from lower lead prices and substantially increased energy costs. No dividends were paid by Tara Exploration during the year.

Research and Development

The Technical Research Centre at Trail concentrated largely on projects related to modernization of the operations. New technology for a zinc residue leach process was tested in a mini-pilot stage. Successful application of effluent abatement technology developed for Cominco operations has generated interest for this technology from other companies. Sophisticated electrochemical measurement systems



Adjustment is made at Cominco's Sheridan Park Research Centre, near Toronto, to this instrument used in calibrating zinc die casting machines.

were developed for improved control of zinc and lead electro-winning and electro-refining plants.

The Product Research Centre at Sheridan Park, Ontario, continued to provide technical assistance and support to Cominco customers. Die-casting customers were assisted in the use of new advanced die design and instrumentation technology. Development work on battery manufacturing equipment continued satisfactorily. Cominco equipment for the manufacture of lead alloy grids by the battery industry for maintenance-free electric storage batteries has attracted much favourable attention from manufacturers.

Exploration

The exploration program of the Company, its subsidiaries and associates, has two objectives: to maintain adequate reserves at operating mines, and to find and develop new ore deposits.

Exploration expenditures in 1980 totalled \$44.1 million. Investigation and evaluation of identified mineral properties accounted for \$29.0 million. This amount was capitalized as Investments in Mineral Properties and will be amortized against future earnings. The remaining \$15.1 million was expended on general mining exploration and charged to earnings in 1980.

Exploration efforts in 1980 increased ore reserves at the Con and Pine Point mines, and replaced ore mined at the Black Angel, Rubiales, Ardlethan and Cleveland mines. Six million tons of new reserves at Pine Point were announced in March 1980.

Exploration for new deposits was carried out on a world-wide basis in 1980. Projects in Canada accounted for slightly more than one-half of the total cost. Diamond drill programs were conducted on over 60 properties and about one-third of these will be the subject of continued work in 1981. Zinc and lead remain the main targets of Cominco's exploration program but a major effort is also being directed towards the search for gold, silver, molybdenum, copper, tungsten, tin, diamonds, and phosphate rock.

Important developments in 1980 included recovery of alluvial diamonds from stream gravels in Brazil; initiation of small-scale alluvial diamond production in South Africa; identification of a low-grade silver-gold deposit in eastern Australia; and continued assessment of a phosphate deposit in French Polynesia.

In the Northwest Territories the major drill program on the Hay West property in the Pine Point carbonate belt was continued. On the Bathurst Norsemans property, drilling located improved zinc and silver grades in the main zone.

Employee Relations

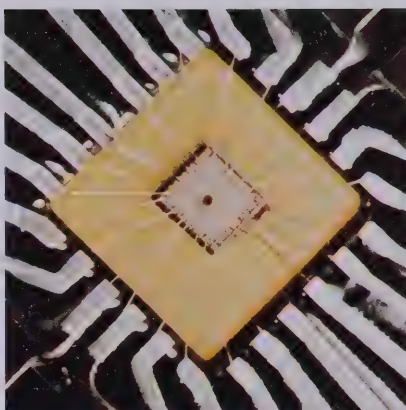
At the end of 1980 Cominco and its subsidiaries employed approximately 12,300 people in 13 countries, of whom more than 10,000 were in Canada. The number of employees increased by 1,000 during the year principally because of the construction activity at Trail and the acquisition of Bethlehem Copper Corporation.

Collective agreements of Western Canada Steel Limited and West Kootenay Power and Light Company, Limited expired in 1980 and were renewed. Bargaining for a new collective agreement at the Con Mine to replace one that expired on October 31 was not concluded by year-end,

although operations continued normally. Agreements are to be renegotiated in 1981 at 12 operations.

The shortage of skilled mine employees and tradesmen created some difficulties at the Con Mine, at Pine Point, and at Trail. An improved Mine Training Program was instituted at the Con Mine, and existing apprenticeship programs were expanded at Pine Point and Trail. The Company had 608 apprentices in training at various locations at year-end. This gives a ratio of one apprentice to approximately two journeymen in service, maintaining Cominco's leadership in trades skills training.

The first group of Inuit who will become employees at the Polaris Mine were enrolled during the year in education upgrading courses in preparation for the mine's initial apprentice training program scheduled to start in 1981.



Cominco American's Electronic Materials Division makes sub-assembly components for the electronics industry.

A third of the employees at the Black Angel Mine are Greenlanders, a result of continuous efforts by Greenex

operations to expand their number in the work force. This success is reflected in reduced employee turnover.

Close attention continued to be given in 1980 to the safety and health aspects of working conditions at all operations. Cominco American, twice a winner of the prestigious Sentinels of Safety award for its Magmont Mine, continues to have an excellent record. The overall safety performance of the Canadian operations parallels the national industrial average. A number of new safety programs were undertaken in 1980, one of the most ambitious being the introduction of a comprehensive Loss Control Program at Pine Point.

The Company honoured 83 employees who attained 40 years of service during 1980.

In 1980, 59 children of employees were recipients of higher education awards as a result of high scholastic standing.

Environmental Impact and Control

Every industry, like every living thing, produces waste. Industry, being concentrated in one area, produces waste in noticeable quantities. The policy of Cominco is to meet all government regulations and to improve upon them wherever possible.

Cominco has the technical and professional expertise to meet environmental demands. Agronomists, soil scientists, laboratory and research technicians, geologists and engineers contribute to the understanding and managing of environmental problems. Expertise and imagination can soften or eliminate negative impacts.

At Trail, a number of important environmental projects continued in 1980. The construction of an effluent treatment plant advanced satisfactorily. This \$9 million project involves the collection of waste water from the metallurgical operations and treatment to reduce the remaining metals content.

Environmental work for the Polaris Mine project began in 1974 to ensure that this project, when developed, will have minimum adverse impact.

1980 Quarterly Earnings (\$ Millions)

	1st	2nd	3rd	4th	Year Total
Revenue	\$337.7	\$374.1	\$344.1	\$400.2	\$1,456.1
Costs and expenses	238.6	317.1	286.1	325.7	1,167.5
Income and resource taxes	40.0	23.2	26.4	28.0	117.6
Minority interests in net earnings of subsidiary companies	2.9	2.5	4.8	3.9	14.1
Earnings before the following	56.2	31.3	26.8	42.6	156.9
Equity in net earnings of associated companies	5.5	3.8	1.7	2.9	13.9
Gains (losses) on translation of accounts of foreign subsidiaries	(1.6)	(0.6)	0.8	(0.1)	(1.5)
Net earnings	\$ 60.1	\$ 34.5	\$ 29.3	\$ 45.4	\$ 169.3
Earnings per common share	\$ 3.40	\$ 1.90	\$ 1.60	\$ 2.54	\$ 9.44

Social Responsibility

This Annual Report has reported briefly on corporate social performance in such areas as safety in the workplace, hiring practices, and environment. The benefits of some of the Company's actions are difficult to measure. However, the emphasis it places on these intangibles reflects Cominco's concern about the social consequences of its decisions.

The Company is responsible for the resources entrusted to it, for the people who work for it, and to the many publics it serves. Cominco conducts its business affairs in accordance with the highest ethical standards, and within prevailing laws wherever it operates.

Cominco complies with the Canadian Government's guidelines for Canadian companies operating abroad.

Production and Sales Statistics

		1980		1979	
		Sales	Production	Sales	Production
Refined Metal					
Zinc					
Trail	tons	240,700	233,000	228,000	229,000
Tolled – Pine Point	tons	6,400	6,400	3,800	3,400
– Black Angel	tons	37,400	36,900	48,600	47,200
		284,500	276,300	280,400	279,600
Lead					
Trail	tons	121,600	130,000	142,000	140,000
Tolled – Magmont	tons	37,600	34,000	32,000	34,000
		159,200	164,000	174,000	174,000
Silver (1)	ounces	8,491,000	8,917,000	9,883,000	10,002,000
Gold					
Con/Rycon	ounces	97,100	96,900	97,200	95,000
Others	ounces	24,400	24,400	25,100	25,100
		121,500	121,300	122,300	120,100
Concentrates (2)					
Zinc					
Sullivan	tons	—	105,200	—	143,000
Magmont	tons	6,700	6,600	9,300	9,300
Pine Point	tons	40,600	314,600	73,700	288,000
Black Angel	tons	88,500	167,500	101,400	167,000
		135,800	593,900	184,400	607,300
Lead					
Sullivan	tons	—	121,100	—	160,000
Magmont	tons	6,500	54,500	12,400	57,900
Pine Point	tons	61,000	81,800	63,500	73,900
Black Angel	tons	46,100	46,300	45,600	49,100
		113,600	303,700	121,500	340,900
Chemicals and Fertilizers					
Canada	tons	1,352,000	1,336,000	1,388,000	1,391,000
United States	tons	450,000	442,000	427,000	391,000
		1,802,000	1,778,000	1,815,000	1,782,000
Potash	tons	1,030,000	1,009,000	877,000	830,000

(1) Includes silver sold in concentrates and intermediate products.

(2) Sales tonnages exclude concentrates processed at Trail and tolled through other smelters.

Ore Reserves

Operating Mines

Operating Mines			1980				1979			
			Ore (Tons) (Thousands)	% Pb	% Zn	Ag oz/ton	Ore (Tons) (Thousands)	% Pb	% Zn	Ag oz/ton
Measured and Indicated										
Zinc-lead										
B.C.	Sullivan	53,000	4.5	6.0	1.1	54,000	4.5	5.9	1.1	
N.W.T.	Pine Point	41,000	1.9	5.3	—	38,000	1.9	5.0	—	
U.S.A.	Magmont	5,700	8.1	1.1	0.3	6,300	7.7	1.1	0.3	
Greenland	Black Angel	3,500	4.4	13.4	1.0	3,300	4.6	13.4	1.0	
Spain	Rubiales	14,200	1.3	7.3	0.4	13,800	1.4	7.6	0.4	
Gold										
N.W.T.	Con/Rycon	2,200		oz Au/ton		1,800		oz Au/ton		
				0.49				0.52		
Tin-Tungsten										
Australia	Aberfoyle	3,700		% Sn WO ₃		3,600		% Sn WO ₃		
				0.6				0.6		
Phosphate Rock										
U.S.A.	Warm Springs	7,500		% P ₂ O ₅		7,600		% P ₂ O ₅		
				30.0				30.0		
Potash										
Sask.	Vade	102,000		% K ₂ O		105,000		% K ₂ O		
				26.3				26.3		
Coal										
B.C.	Fording Coal	62,000 (1)	clean coal equivalent			65,000				
Copper										
B.C.	Jersey Mine	53,300 (2)		% Cu						
				0.42						

Potential Mines (including those under development)

Measured, Indicated and Inferred

<i>Zinc-lead</i>										
N.W.T.	Polaris		25,400	4.3	14.1	—	25,400	4.3	14.1	—
Australia	Que River		6,900	5.2	9.6	3.5	6,900	5.2	9.6	3.5
U.S.A.	Magmont West		1,700	5.0	2.3	0.3	1,700	5.0	2.3	0.3
Spain	La Troya		5,500	1.2	10.7	0.5	5,500	1.2	10.7	0.5
<i>Copper</i>										
B.C.	Valley Copper		800,000		% Cu	0.475	800,000		% Cu	0.475
<i>Mercury</i>										
B.C.	Pinchi Lake		1,200		lbs Hg/ton	6.4	1,200		lbs Hg/ton	6.4
<i>Phosphate</i>										
U.S.A.	Douglas		12,000		% P ₂ O ₅	31.0 ⁽³⁾	12,000		% P ₂ O ₅	31.0
<i>Coal</i>										
Alta./Sask.	Fording Coal		1,900,000 ⁽¹⁾	thermal			1,827,000			

(1) Estimated by Fording Coal

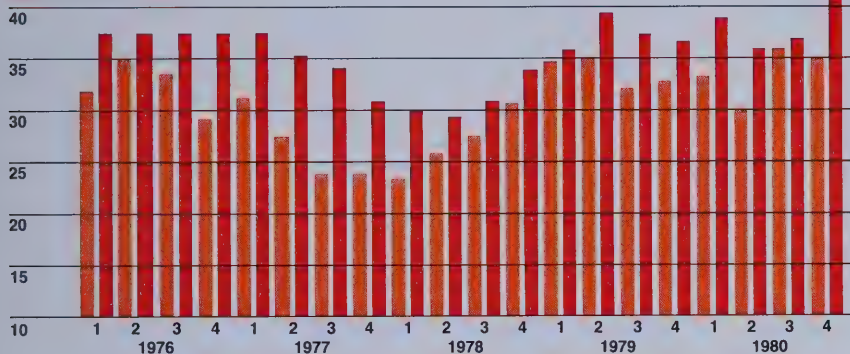
(2) Estimated by Bethlehem Copper

(3) Phosphate concentrate equivalent

1980 Metal Prices

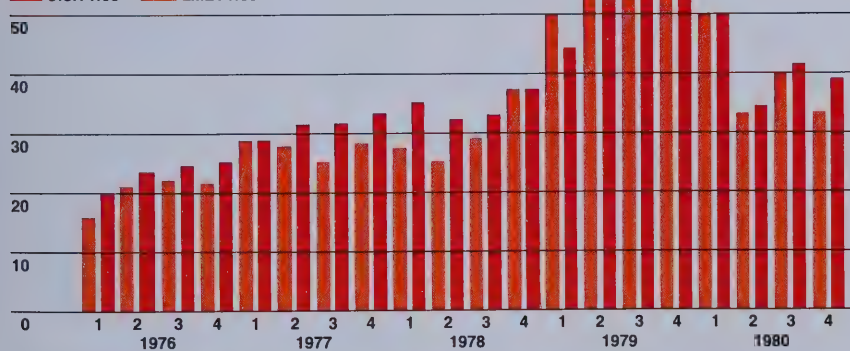
Zinc Prices (U.S. ¢/lb.)

■ U.S. Price ■ LME Price



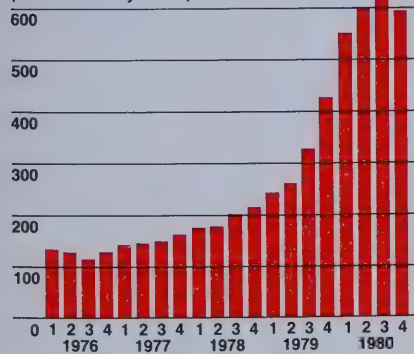
Lead Prices (U.S. ¢/lb.)

■ U.S. Price ■ LME Price



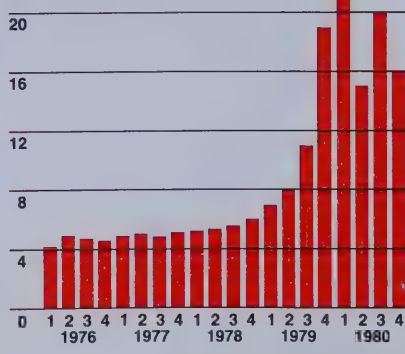
London Gold Price

(U.S. dollars/troy ounce)



U.S. Silver Price

(U.S. dollars/troy ounce)



Summary of Significant Accounting Policies

The accounts of Cominco Ltd. (the Company) are prepared using generally accepted accounting principles in Canada and on a basis consistent with the previous year. To facilitate review of the consolidated statements contained in this report, the significant accounting policies followed by the Company and its subsidiaries are summarized below.

Principles of Consolidation

The accounts of the Company and its subsidiaries are consolidated in the financial statements. The differences between the cost of the investments and the underlying book values of the assets at the dates of acquisition have been allocated to fixed assets on consolidation and are being amortized accordingly. Inter-company items and transactions between consolidated companies are eliminated.

Investments in associated companies (those companies in which the Company owns 50% or less of the shares and over which it has significant influence) are accounted for by the equity method. Under this method the Company includes in its earnings its share of the earnings or losses of associated companies. In measuring the Company's share of earnings or losses, amortization of differences between the cost of the investments and underlying book values are taken into account.

Foreign Currency Translation

The accounts of foreign subsidiaries are translated into Canadian dollars. Accounts included in the consolidated statement of earnings, except product inventories, depreciation and depletion, are translated at the weighted average rates of exchange prevailing during the year. Product inventories, depreciation and depletion are translated at the rates in effect when the related expenditures are made. Accounts included in the

consolidated balance sheet are translated at rates of exchange in effect at the end of the year, except that: a) inventories, investments, fixed assets and accumulated depreciation and depletion are at rates at dates of acquisition; b) deferred income taxes and retained earnings are at rates at date of origin; and c) debts not maturing within one year and share capital are at rates at dates of issue. The resulting translation adjustments are included in the determination of consolidated earnings.

Inventories

Finished goods, raw materials and partially processed materials are valued generally at the lower of cost (determined on the monthly average method) and net realizable value. Cost of certain inventories in the United States is determined on a last-in, first-out basis. Stores and operating supplies are valued at average cost less appropriate allowances for obsolescence.

Land, Buildings and Equipment

Land, buildings and equipment are recorded at cost and include the cost of renewals and betterments. When assets are sold or abandoned, the recorded costs and related accumulated depreciation are removed from the accounts and any gains or losses are included in earnings. Repairs and maintenance are charged against earnings as incurred.

Depreciation is calculated on the straight-line method using rates based on the estimated service lives of the respective assets. In some integrated mining and manufacturing operations, assets are pooled and depreciated at composite rates. Depreciation is not provided on major additions until commencement of commercial production.

Mineral Properties and Development

Expenditures on general mineral exploration are charged against earnings as incurred. Expenditures to investigate identified properties and to develop new mines are capitalized as mineral properties and development. Due to the uncertainty of the final

outcome, expenditures on investigation together with the cost of certain investments in mineral companies are amortized against earnings by charges for depletion. Abandoned properties are charged against earnings in the year of abandonment. Depletion on operating mines is provided on a units-of-production or on a time basis related to the mineral reserves position.

Taxes on Income

Income tax laws in Canada and in some other countries permit the deduction of depreciation and other items from income to determine taxable income at times which do not coincide with those used for financial reporting purposes. These differences in timing of deductions result in taxes being provided which are not currently payable.

Tax savings from investment tax credits are reflected in earnings as they are realized.

Withholding taxes, where applicable, on earnings of foreign operations are provided in the accounts to the extent of dividends anticipated in the future.

Research and Product Development

Research and product development costs are charged against earnings as incurred.

Interest

Generally, interest expense is charged against earnings. Interest on specific borrowings for major expenditures for fixed assets is capitalized during the construction period.

Earnings per Share

Earnings per common share are calculated by dividing net earnings less preferred dividends paid and accrued, by the average number of shares outstanding during the year.

Consolidated Statement of Earnings

Year Ended December 31, 1980

	1980	1979
	(thousands)	
Revenue		
Sales of products and services	\$1,442,698	\$1,273,903
Income from investments	13,425	17,858
	<u>1,456,123</u>	<u>1,291,761</u>
Costs and Expenses		
Cost of products and services	877,439	676,606
Distribution	110,385	101,135
Selling	28,323	22,703
General and administrative	39,548	33,586
General mineral exploration	13,166	10,489
Long-term debt interest and expense	24,866	24,950
Depreciation, depletion and amortization	73,836	72,520
	<u>1,167,563</u>	<u>941,989</u>
Earnings Before the Following	<u>288,560</u>	<u>349,772</u>
Taxes on income including resource taxes		
Current	69,434	103,816
Not currently payable	48,118	29,269
	<u>117,552</u>	<u>133,085</u>
	<u>171,008</u>	<u>216,687</u>
Minority interests in net earnings of subsidiary companies	14,097	23,088
	<u>156,911</u>	<u>193,599</u>
Equity in net earnings of associated companies	13,905	10,670
Gain (loss) on translation of accounts of foreign subsidiaries	(1,554)	(618)
Net Earnings	<u>\$ 169,262</u>	<u>\$ 203,651</u>
Earnings Per Common Share	<u>\$ 9.44</u>	<u>\$ 11.52</u>

Consolidated Statement of Earnings Reinvested in the Business

Year Ended December 31, 1980

	1980	1979
	(thousands)	
Amount at Beginning of Year	<u>\$545,554</u>	<u>\$430,226</u>
Net earnings	169,262	203,651
	<u>714,816</u>	<u>633,877</u>
Deduct		
Dividends paid		
Preferred – Series A \$2.00 per share	3,920	4,000
“ – Series C \$2.11 per share (1979 – \$1.71)	4,227	3,418
Common \$4.40 per share (1979 – \$4.75)	75,162	80,905
	<u>83,309</u>	<u>88,323</u>
Amount at End of Year	<u>\$631,507</u>	<u>\$545,554</u>

Consolidated Balance Sheet

at December 31, 1980

Assets

Current Assets

	1980	1979
	(thousands)	
Cash and short-term investments	\$ 79,252	\$ 92,706
Accounts receivable	242,492	188,967
Inventories (Note 2)	278,311	274,055
Prepaid expenses	3,771	3,982
	<u>603,826</u>	<u>559,710</u>

Investments (Note 3)

Associated companies	81,451	73,701
Other companies	36,653	78,302
	<u>118,104</u>	<u>152,003</u>

Fixed Assets

Land, buildings and equipment	1,170,993	889,216
Less accumulated depreciation	428,441	354,869
	<u>742,552</u>	<u>534,347</u>
Mineral properties and development	236,760	196,339
Less accumulated depletion	69,382	85,217
	<u>167,378</u>	<u>111,122</u>
	<u>909,930</u>	<u>645,469</u>
Other Assets (Note 4)	11,491	13,999
	<u>\$1,643,351</u>	<u>\$1,371,181</u>

Liabilities and Shareholders' Equity

Current Liabilities

Bank loans	\$ 81,703	\$ 34,073
Accounts payable and accrued liabilities	163,639	160,617
Income and resource taxes	36,504	86,642
Long-term debt due within one year	7,445	8,748
	<u>289,291</u>	<u>290,080</u>

Long-Term Debt (Note 5)	329,014	226,000
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Income Taxes Provided but not Currently Payable	168,380	119,618
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Minority Interests	90,393	54,795
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Shareholders' Equity


Capital (Note 6)	134,766	135,134
Earnings reinvested in the business	631,507	545,554
	<u>766,273</u>	<u>680,688</u>

Commitments and Contingent Liabilities (Note 8)

	<u>\$1,643,351</u>	<u>\$1,371,181</u>
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Approved by the Board:

 Director

 Director

Consolidated Statement of Changes in Financial Position

Year Ended December 31, 1980

	1980 (thousands)	1979
Source of Funds		
Funds provided from operations	\$304,122	\$323,875
Proceeds from disposal of land, buildings, equipment and investments	5,931	4,201
Additional long-term debt	117,813	4,200
Proceeds from issue of common shares	1,088	1,432
Working capital added on consolidation of Bethlehem Copper Corporation on November 1, 1980	79,682	—
	<u>\$508,636</u>	<u>\$333,708</u>
Application of Funds		
Land, buildings and equipment	\$240,598	\$114,777
Mineral properties and development	39,654	35,371
Purchase of shares of Bethlehem Copper Corporation (Note 7)	61,013	—
Investment in associated companies	814	1,112
Investment in other companies	1,225	295
Repayments on long-term debt	15,166	13,094
Preferred shares purchased for cancellation	1,456	71
Dividends — to common shareholders	75,162	80,905
— to preferred shareholders	8,147	7,418
— to minority shareholders of subsidiary companies	17,293	10,577
Loan to Bankeno Mines Limited	—	3,000
Working capital of former subsidiaries removed from the consolidation	—	1,542
Other	3,203	3,987
	<u>463,731</u>	<u>272,149</u>
	<u>44,905</u>	<u>61,559</u>
Increase in Working Capital	<u>\$508,636</u>	<u>\$333,708</u>

Auditors' Report

To the Shareholders
of Cominco Ltd.

We have examined the consolidated balance sheet of Cominco Ltd. as at December 31, 1980 and the consolidated statements of earnings, earnings reinvested in the business and changes in financial position for the year then ended. We also examined the statement of segmented information as at December 31, 1980 and for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these consolidated financial statements present fairly the financial position of the

Company as at December 31, 1980 and the results of its operations and the changes in its financial position for the year then ended, and the statement of segmented information presents fairly the information set forth therein, all in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Vancouver, Canada
February 6, 1981

Thorne Riddell
Chartered Accountants

Statement of Segmented Information

Year Ended December 31, 1980

(Millions)

By Industry Segment

	Mining and Integrated Metals		Fertilizers & Chemicals		Other Operations		Consolidated	
	1980	1979	1980	1979	1980	1979	1980	1979
Revenue								
Sales to external customers	\$849.8	\$788.7	\$390.3	\$317.3	\$202.6	\$167.9	\$1,442.7	\$1,273.9
Sales to other segments	32.8	32.2	3.2	0.3	1.4	1.6		
	\$882.6	\$820.9	\$393.5	\$317.6	\$204.0	\$169.5		
Earnings								
Operating profit before unallocated items, below	\$210.1	\$312.1	\$ 90.4	\$ 50.3	\$ 24.8	\$ 17.9	\$ 325.3	\$ 380.3
General mineral exploration							(13.2)	(10.5)
Interest on long-term debt . .							(24.9)	(25.0)
Corporate (net)							1.4	5.0
Income and resource taxes							(117.6)	(133.1)
Earnings before minority interest, gain on translation and equity in earnings of associates							\$ 171.0	\$ 216.7
Identifiable Assets								
Segment assets								
– Operating	\$685.0	\$531.7	\$359.7	\$319.3	\$181.5	\$157.3	\$1,226.2	\$1,008.3
– Undeveloped properties and construction in progress	257.3	134.2	2.1	14.0	9.4	3.6	268.8	151.8
	\$942.3	\$665.9	\$361.8	\$333.3	\$190.9	\$160.9	\$1,495.0	\$1,160.1
Corporate assets							30.3	59.1
Investment in associated and other companies							118.1	152.0
Total Assets							\$1,643.4	\$1,371.2
Depreciation, Depletion and Amortization	\$ 43.6	\$ 40.3	\$ 20.1	\$ 23.4	\$ 10.1	\$ 8.8	\$ 73.8	\$ 72.5
Capital Expenditures	\$236.8	\$115.6	\$ 18.4	\$ 18.9	\$ 25.1	\$ 15.6	\$ 280.3	\$ 150.1

By Geographic Region

Canada		United States		Other Countries	
1980	1979	1980	1979	1980	1979
\$1,019.1	\$868.9	\$341.1	\$299.8	\$ 82.5	\$105.2
102.8	93.4	20.3	6.6	—	—
\$1,121.9	\$962.3	\$361.4	\$306.4	\$ 82.5	\$105.2
\$ 255.8	\$300.9	\$ 46.4	\$ 44.4	\$ 23.1	\$ 35.0

\$ 971.3	\$775.1	\$134.4	\$105.5	\$120.5	\$127.7
239.6	118.4	21.7	32.7	7.5	0.7
\$1,210.9	\$893.5	\$156.1	\$138.2	\$128.0	\$128.4

\$ 49.6	\$ 50.4	\$ 16.1	\$ 13.7	\$ 8.1	\$ 8.4
\$ 247.8	\$114.1	\$ 25.0	\$ 31.6	\$ 7.5	\$ 4.4

Notes to the Statement of Segmented Information

Year Ended December 31, 1980

- The Company operates in three industry segments
 Mining and Integrated Metals
 Principally the mining, processing, smelting, and refining of lead, zinc, silver and gold into concentrates and refined metal.
 Fertilizers & Chemicals
 Principally the production of potash, ammonia, urea, phosphates, nitrates and sulphuric acid.
 Other Operations
 Principally metal products and electric power distribution.
- Sales to other segments are accounted for at prices which approximate market.
- Investment income and certain corporate expenditures and assets relating to the overall direction and management of the Company's activities are not allocated to industry segments.
- Canadian export sales amounted to \$660.2 million (1979: \$558.2 million).

Notes to Consolidated Financial Statements

Year Ended December 31, 1980

1. Accounting Policies

The significant accounting policies followed by the Company and its subsidiary companies are summarized under the caption "Summary of Significant Accounting Policies".

2. Inventories

	1980	1979
	(thousands)	
Finished goods	\$123,711	\$112,292
Raw materials and partially processed materials	93,327	112,030
Stores and operating supplies	61,273	49,733
	<u>\$278,311</u>	<u>\$274,055</u>

3. Investments

	1980	1979
	(thousands)	
Associated companies:		
Shares at cost	\$ 52,381	\$ 53,055
Equity in undistributed earnings	29,070	20,646
	<u>\$ 81,451</u>	<u>\$ 73,701</u>
Other companies:		
Shares at cost		
Panarctic Oils Ltd. (8.0% owned)	\$ 18,391	\$ 18,391
Tara Exploration and Development Company Limited (17.4% owned) ..	26,903	26,903
Bethlehem Copper Corporation (1980 - Consolidated, being a subsidiary - Note 7; 1979 - 39.2% owned) ...	—	41,313
Other companies	6,610	4,903
Other	433	464
	<u>52,337</u>	<u>91,974</u>
Less accumulated depletion of mineral investments	15,684	13,672
	<u>\$ 36,653</u>	<u>\$ 78,302</u>

4. Other Assets

	1980	1979
	(thousands)	
Debt financing costs, less amounts amortized.	\$ 2,226	\$ 2,682
Loan to Bankeno Mines Limited	3,000	3,000
Other	6,265	5,167
Mortgage receivable on sale of land, due 1981	—	3,150
	<u>\$ 11,491</u>	<u>\$ 13,999</u>

5. Long-Term Debt (excluding amount due within one year)

	1980	1979
	(thousands)	
Cominco Ltd.		
10% Serial Notes due 1982 to 1996, U.S. \$50,000,000	\$ 49,224	\$ 49,224
8½% Sinking Fund debentures due 1991 ...	54,183	56,876
10¾% Sinking Fund debentures due 1995 ...	52,394	57,610
Bank loan due 1982 and 1983 with interest related to the Canadian prime bank rate	13,000	17,000
Export-Import Bank of the United States 8% loan due 1982 to 1985, U.S. \$5,337,000	5,315	6,834
Bank loan due 1983 to 1994 with interest related to prime bank rates (financing of Polaris Project)	51,000	—
Bank loan due 1982, convertible at option of the Company to become repayable over ten years with interest related to prime bank rates (financing of Bethlehem Copper Corporation share purchase)	61,013	—

(continued)

(continued)

West Kootenay Power and Light Company, Limited		
5¾% First Mortgage bonds due 1985	5,954	6,248
Bank loan due 1982 bearing interest at ¼% above Canadian prime bank rate	32,200	26,400
Cominco American Incorporated		
7% Notes due 1982 to 1985		
U.S. \$4,041,000	4,364	5,800
Other Companies	367	8
	<u>\$329,014</u>	<u>\$226,000</u>

Payments required on long-term debt, assuming the conversion of the bank loan due 1982 into a ten-year term loan are: 1981 \$7,445,000; 1982 \$42,676,000; 1983 \$27,651,000; 1984 \$21,326,000; 1985 \$24,184,000.

If translated into Canadian dollars at year-end rates of exchange, long-term debt would increase by \$12,035,000 in 1980 and \$10,699,000 in 1979. This is not necessarily indicative of the amounts which will be repaid when the obligations are retired.

6. Capital

A Certificate of Continuance was obtained on May 1, 1980, continuing the Company under the Canada Business Corporations Act, and authorizing the Company to issue an unlimited number of Preferred and Common shares.

	1980	1979
	(thousands)	
a) Issued and fully paid:		
Preferred –		
1,938,884 shares (1979 – 1,997,150) – \$2.00 Tax Deferred Exchangeable Shares Series A (Note 6(d))	\$ 48,473	\$ 49,929
2,000,000 – Floating Rate Preferred Shares		
Series C	50,000	50,000
	<u>98,473</u>	<u>99,929</u>
Common –		
17,084,453 shares (1979 – 17,050,003) (Note 6(c))	36,293	35,205
	<u>\$134,766</u>	<u>\$135,134</u>

b) Preferred Shares:

The Company has constituted the following Preferred Shares:

- 2,000,000 shares as "\$2.00 Tax Deferred Exchangeable Preferred Shares Series A"
- 2,000,000 shares as "\$2.4375 Preferred Shares Series B"
- 2,000,000 shares as "Floating Rate Preferred Shares Series C"

Each Series A Preferred Share is entitled to a fixed cumulative cash dividend of \$2.00 per annum payable semi-annually. The Series A Shares are exchangeable into Series B Preferred Shares after June 1, 1988. Each Series C Preferred Share is entitled to a cumulative cash dividend which is related to the prime rate of interest charged by certain Canadian banks, adjusted quarterly and payable semi-annually. The holders of the Series C shares may call for retraction on March 31, 1988.

- c) Shares issued during the year for cash:
34,450 Common Shares (Note 6(e)) \$1,088,000
- d) Shares purchased for cancellation:
During 1980, the Company purchased for cancellation 58,266 Series A Preferred Shares with an issued value of \$1,456,000 for \$1,397,000 cash.
- e) The Company has reserved 200,000 Common Shares for stock option plans in favour of certain executives in the full-time employment of the Company or a subsidiary. To December 31, 1980, options (exercisable within five years of issue) have been granted for 165,400 shares at 90% of the market price on the day of granting the options.

Outstanding options are as follows:

Granted	Price	Outstanding Dec. 31, 1980	Exercised in 1980
1975	27.45	NIL	1,500
1976	34.99	3,700	9,000
1977	32.63	3,525	9,100
1978	24.41	1,500	5,700
1979	32.40	16,250	9,150
1980	52.31	<u>21,750</u>	<u>NIL</u>
		<u><u>46,725</u></u>	<u><u>34,450</u></u>

7. Bethlehem Copper Corporation

On October 31, 1980 the Company purchased 1,627,000 common shares of Bethlehem Copper Corporation (Bethlehem) for \$61,013,000 (\$37.50 a share), bringing its holdings from 39.2% to 64.4%. The assets and liabilities of Bethlehem were brought into the consolidation at the date of this acquisition on a purchase basis with the following effect on the Company's consolidated financial position:

Changes in:

Working capital	\$ 79,682
Investments	482
Land, buildings and equipment	21,421
Mineral properties and development. . .	46,083
Long-term liabilities.	(4,454)
Deferred income taxes.	(3,435)
Minority interests	(37,453)
	<u>\$102,326</u>

Representing:

Investment in Bethlehem at start of year	\$ 41,313
Purchase October 31, 1980,	
financed by bank loan	61,013
	<u>\$102,326</u>

See Note 10 regarding a further acquisition of shares in Bethlehem in 1981.

8. Commitments and Contingent Liabilities

- a) The Company and its subsidiaries have pension plans covering substantially all employees. Pension costs for current service are charged to earnings in the year incurred. The liability for past service is being funded and charged to earnings over varying periods up to 15 years. The date of the most recent actuarial evaluation for most pension plans is December 31, 1979. At December 31, 1980, actuarial estimates of the unfunded liability for past service amount to \$73,000,000 of which \$60,000,000 remains to be charged to earnings, \$13,000,000 having been charged to earnings by provisions in prior years. The vested portion of the unfunded liability for past service is \$58,000,000.

Total pension expense including past service costs was \$21,073,000 for 1980 and \$26,411,000 for 1979.

- b) At December 31, 1980, guarantees and commitments were as follows: Garant  es \$37,900,000 of which \$26,200,000 was for bank loans of an associated company.
Unexpended amounts remaining on approved major capital projects \$303,000,000.

9. Related Party Transactions

Related parties consist of the Company's associated companies and Canadian Pacific Limited and its subsidiary and associated corporations.

Sales (all at fair market prices) to related parties amounted to \$51,600,000 in 1980. The Company provides management services at cost to certain associated companies.

The Company has a revolving line of credit with Canadian Pacific Securities Limited in the amount of \$30 million which provides for loans of up to one year at interest rates related to prime bank rates and commercial paper rates.

The Company makes extensive use of both major Canadian railroads, one of which is a division of Canadian Pacific Limited (C.P. Rail), for the transportation of its raw materials and finished products. Freight charges from C.P. Rail are at published tariff rates. In addition, in the regular conduct of its business, the Company makes use of other services, facilities and products of the Canadian Pacific organization. These transactions are at rates and terms similar to those for unrelated customers.

10. Subsequent Event

On February 2, 1981, the Company purchased 1,963,015 shares of Bethlehem Copper Corporation for \$73,913,000 (\$37.50 per share) bringing its holdings to 93.3%. This acquisition has been financed under the same loan arrangements as for the acquisition of shares in 1980 (see Note 5).

Principal Subsidiaries and Associated Companies

	Cominco Ownership		Head Office
Aberfoyle Limited	47%	N.A. Gilberthorpe <i>Chairman and Chief Executive Officer</i>	Melbourne, Australia
Bethlehem Copper Corporation	93%*	B. J. Reynolds <i>President and Chief Executive Officer</i>	Vancouver, British Columbia
The Canada Metal Company Limited	50%	D. F. Hutton <i>Chairman and Chief Executive Officer</i>	Toronto, Ontario
Cominco American Incorporated	100%	L. D. Demand <i>President and Chief Executive Officer</i>	Spokane, Washington, U.S.A.
Cominco Binani Zinc Limited	40%	G. Binani <i>Chairman</i>	Calcutta India
Cominco Europe Limited	100%	P. Hansen <i>Chairman of the Board, President and Chief Executive Officer</i>	London, England
Cominco (U.K.) Limited	100%	D.M. Silver <i>Chairman and Managing Director</i>	London, England
Exploracion Minera Internacional Espana S.A. (Exminesa)	47%	F. Prugger <i>Managing Director</i>	Villafranca del Bierzo, Spain
Fording Coal Limited	40%	J. H. Morrish <i>President and Chief Executive Officer</i>	Calgary, Alberta
Mitsubishi Cominco Smelting Company Limited	45%	T. Nagano <i>President</i>	Tokyo, Japan
Pine Point Mines Limited	69%	R. P. Douglas <i>President and Chief Executive Officer</i>	Yellowknife, N.W.T.
Valley Copper Mines Limited (N.P.L.)	92%*	R. P. Taylor <i>President</i>	Vancouver, British Columbia
Vestgron Mines Limited	63%	O. E. Owens <i>President</i>	Yellowknife, N.W.T.
Greenex A/S	63%	E. Sprunk-Jansen <i>Managing Director</i>	Umanak, Greenland
Western Canada Steel Limited	100%	M. C. D. Hobbs <i>Chairman and Chief Executive Officer</i>	Vancouver, British Columbia
Hawaiian Western Steel Limited	51%	G. W. Hogue <i>General Manager</i>	Ewa, Hawaii
West Kootenay Power and Light Company, Limited	Common 100% Preferred 30%	J. A. Drennan <i>President and Chief Executive Officer</i>	Trail, British Columbia

*As at February 1981

Principal Offices

Head Office 200 Granville Street,
Vancouver, British Columbia V6C 2R2

Group Offices Canada
Trail, British Columbia
Calgary, Alberta
Yellowknife, Northwest Territories
Europe
London, England
U.S.A.
Spokane, Washington

Research Centres Trail, British Columbia
Sheridan Park, Ontario

Sales Offices

CANADA Cominco Ltd.
Vancouver, British Columbia
Toronto, Ontario
Calgary, Alberta

U.S.A. Cominco American Incorporated
Spokane, Washington
Chicago, Illinois
Fargo, North Dakota
Minneapolis, Minnesota
Lincoln, Nebraska
Amarillo, Texas

EUROPE Cominco (U.K.) Limited
London, England
Manchester, England
Glasgow, Scotland

Exploration Offices

CANADA Cominco Ltd.
Vancouver, British Columbia
Toronto, Ontario
Cranbrook, British Columbia
Vernon, British Columbia
Whitehorse, Yukon

U.S.A. Cominco American Incorporated
Spokane, Washington
Anchorage, Alaska
St. Charles, Missouri

EUROPE Cominco S.A.
Brussels, Belgium
Cominco France S.A.
Paris, France
Cominco Italia SpA
Rome, Italy

AUSTRALIA Aberfoyle Limited
Adelaide, South Australia
Armidale, N.S.W.
Burnie, Tasmania
Kalgoorlie, West Australia
Melbourne, Victoria
Zeehan, Tasmania

MEXICO Compania Minera Constelacion
S.A. de C.V.
Hermosillo,
Guadalajara

BRAZIL Mineração Cominco Ltda.
Rio de Janeiro

SOUTH AFRICA Eland Exploration (Pty.) Ltd.
Johannesburg

Operating Mines

Aberfoyle — Tasmania
Ardlethan — New South Wales
Black Angel — Greenland
Cleveland — Tasmania
Con — Northwest Territories
Fording Coal — British Columbia
Jersey — British Columbia
Magmont — Missouri
Pine Point — Northwest Territories
Que River — Tasmania (February, 1981)
Polaris — N.W.T. (1982)
Rubiales — Spain
Sullivan — British Columbia
Vade — Saskatchewan
Warm Springs — Montana

Metal Production

Cominco Ltd. — British Columbia
Cominco Binani Zinc Limited — India
Hawaiian Western Steel Limited — Hawaii
Mitsubishi Cominco Smelting Company Limited — Japan
Western Canada Steel Limited — British Columbia; Alberta

Metal Fabrication

The Canada Metal Company Limited
Quebec
Ontario
Manitoba
Alberta
British Columbia
Cominco American Incorporated — Washington
National Hardware Specialties Limited — Ontario
Western Canada Steel — British Columbia

Chemical and Fertilizer Production

Cominco Ltd. — British Columbia; Alberta
Cominco American Incorporated — Nebraska; Texas
Cominco Binani Zinc Limited — India

Directors and Officers

Directors

*M. N. ANDERSON
Chairman and Chief Executive Officer
Cominco Ltd., Vancouver

*W. J. BENNETT
Consultant
Iron Ore Company of Canada, Montreal

†H. C. BENTALL
Chairman of the Board
Dominion Construction Co. Ltd.
Vancouver

*F. S. BURBIDGE
President
Canadian Pacific Limited, Montreal

*F. E. BURNET
Corporate Director
Spokane

R. W. CAMPBELL
Chairman and Chief Executive Officer
PanCanadian Petroleum Limited, Calgary

*H. T. FARGEY
Executive Vice-President, Toronto
Cominco Ltd., Toronto

R. HOUGEN
President,
Hougen's Limited, Whitehorse

†R. A. MacKIMMIE, Q.C.
Partner
Law firm of MacKimmie Matthews
Calgary

P. A. NEPVEU
Vice-Chairman
Canadian Pacific Enterprises Limited
Montreal

†S. E. NIXON
Corporate Director
Montreal

*I. D. SINCLAIR, Q.C.
Chairman and Chief Executive Officer
Canadian Pacific Limited and
Canadian Pacific Enterprises Limited
Montreal

W. J. STENASON
President
Canadian Pacific Enterprises Limited
Montreal

*W. G. WILSON
President
Cominco Ltd., Vancouver

*Members of Executive Committee
†Members of Audit Committee

Officers

M. N. ANDERSON
Chairman and Chief Executive Officer

W. G. WILSON
President

H. T. FARGEY
Executive Vice-President, Toronto

R. P. DOUGLAS
Senior Vice-President, Operations

I. D. SINCLAIR, Q.C.
Vice-President

A. V. MARCOLIN
Group Vice-President at Trail

J. GIOVANETTO
Vice-President, Employee Relations

W. J. ROBERTSON
Vice-President, Prairie Group

P. A. MANSON
Vice-President, Law and General Counsel

O. E. OWENS
Vice-President, Exploration

K. H. SPURR
Vice-President, Metal Sales

R. R. STONE
Vice-President, Finance

L. D. MARGERM
Treasurer

A. D. MILLER
Comptroller

K. S. BENSON
Corporate Secretary

General Information

Transfer Agents and Registrars

The Royal Trust Company
555 Burrard Street, Vancouver, B.C.
V6B 3R7

333-7th Avenue, S.W., Calgary,
Alberta T2P 2Z1

*287 Broadway Avenue, Winnipeg,
Manitoba R3C 2M2

23rd Floor, Royal Trust Tower
Toronto Dominion Centre
P.O. Box 7500 — Station A, Toronto,
Ontario M5W 1P9

630 Dorchester Blvd. W., Montreal,
Quebec H3B 1S6

**One King Street, St. John, N.B.
E2L 1G1

Bank of Montreal Trust Company
**2 Wall Street, New York, N.Y. 10005

Stock Exchanges
Vancouver, Montreal, Toronto (Canada)

**American (U.S.A.)

*Series A Preferred Shares only

**Common Shares only

Share Valuation

For Canadian capital gain tax purposes
the valuation day value of Cominco Ltd.
shares on December 22, 1971 as
established by the Department of
National Revenue was \$22.88.

Stock Holdings

The number of registered holdings of
voting stock on March 13, 1981 was
26,638.

The distribution of the voting rights
was as follows:

Canada	90.8%
United States	8.4%
United Kingdom	0.3%
Other Countries	0.5%
	100.0%

Annual Meeting

Thursday, April 23, 1981 at 11:00 a.m.,
Park Ballroom, Four Seasons Hotel,
Vancouver, B.C.

